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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,225	02/25/2004	Jae-Am Choi	46024	1532
1609 7590 03/22/2007 ROYLANCE, ABRAMS, BERDO & GOODMAN, L.L.P. 1300 19TH STREET, N.W. SUITE 600 WASHINGTON,, DC 20036			EXAMINER ADDY, ANTHONY S	
			ART UNIT 2617	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/785,225

Applicant(s)

CHOI ET AL.

Examiner

Anthony S. Addy

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-14 is/are allowed.
- 6) ☒ Claim(s) 15-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 26, 2006 has been entered. **Claims 1-20** are pending in the present application.

Response to Arguments

2. Applicant's arguments with respect to **claims 1-20** have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 15, 16, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Back et al., U.S. Publication Number 2004/0156329 A1 (hereinafter Back)** and further in view of **Lin, U.S. Patent Number 6,542,744 (hereinafter Lin)**.

Regarding claims 15 and 18, Back discloses a method for handing over a terminal from a first base station to a second base station in a mobile communication

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system while the terminal is in communication with the first base station (see p. 5 [0071-0072], p. 6 [0088-0095] and Fig. 2; shows a UMTS to GSM handover involving mobile station 1), said mobile communication system including said first base station for providing a communication service in a first communication mode, a first base station controller connected with said first base station (see p. 4 [0055] and Fig. 2; shows a UMTS radio access network (UTRAN) including radio network controller (RNC) 7 connected with base station (BTS) 6), said second base station for providing a communication service in a second communication mode, said second communication mode being different from said first communication mode, and a second base station controller connected with said second base station (see p. 4 [0057] and Fig. 2; shows a GSM radio access network 9 including base station controller (BSC) 11 connected with base station (BTS) 10), said method comprising: a) receiving from said first base station controller a notification that said terminal must hand over from said first base station to said second base station (see p. 6 [0089] and Fig. 5; message 1); and b) performing an initialization operation by said terminal for communication with said second base station in said second communication mode upon receiving said notification (see p. 6 [0092-0093][i.e. the teaching of Back that, the user equipment 1 accesses the new radio channel provided by target base station controller 11 reads on the limitations of "performing an initialization operation by said terminal for communication with said second base station in said second communication mode upon receiving said notification").

Back fails to explicitly teach said method comprising: c) notifying said first base station controller by said terminal that said terminal is ready to communicate in said second communication mode.

In an analogous field of endeavor, Lin teaches a handoff method in cellular network for switching from an old base transceiver station (BTS) to a target BTS, wherein the mobile station after establishing communication with the target BTS reports to the old base transceiver station (BTS) that the handoff is complete by sending a Handoff Complete Message (see abstract, col. 7, lines 14-16 and Fig. 7; block 1346).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to modify Back with teachings of Lin, to include a method of notifying said first base station controller by said terminal that said terminal is ready to communicate in said second communication mode, in order for a mobile station to inform an old base transceiver station (BTS) that handover to a target BTS is fully successful, before the old base transceiver station (BTS) releases channel resources or terminates communication with the mobile station as taught by Lin (see abstract and col. 8, lines 18-38).

Regarding claim 16, Back in view of Lin teaches all the limitations of claim 15. Back in view of Lin further teaches a method, further comprising the step of: c) releasing current communication of said terminal with said first base station after said terminal is ready to communicate in said second communication mode (see *Back* p. 6 [0095] and *Lin*, col. 8, lines 18-38).

Regarding claim 20, Back in view of Lin teaches all the limitations of claim 18. In addition, Back in view of Lin further teaches a method, further comprising: c) releasing current communication of said terminal based on said first communication mode upon receiving from said terminal said notification about the fact that said terminal is ready to communicate in said second communication mode (see *Back* p. 6 [0095] and *Lin*, col. 8, lines 18-38).

5. Claims 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Back et al., U.S. Publication Number 2004/0156329 A1 (hereinafter Back)** and **Lin, U.S. Patent Number 6,542,744 (hereinafter Lin)** as applied to claims 15 and 18 above, and further in view of **Kotzin et al., U.S. Patent Number 6,108,322 (hereinafter Kotzin)**.

Regarding claims 17 and 19, Back in view of Lin teaches all the limitations of claims 15 and 18. Back in view of Lin fails to explicitly teach a system and a method further comprises, determining that said terminal must hand over from said first base station to said second base station, when neighbor cell information received from said terminal is insufficient.

Kotzin teaches a method of enabling handoff in a wireless communication system, wherein when degraded conditions are detected by a mobile station, an expedited process is begun to improve the likelihood of providing information necessary to handover to a viable target candidate station (see col. 2, lines 26-50). According to Kotzin, the mobile station will report measurements of any control channel found to the

network and the mobile or serving base station determines which measured and decoded neighbor cell is the strongest and in conjunction with the cellular network, determines if this identified strongest neighbor is available, and if a stronger base is available, the mobile requests a handoff (see col. 6, lines 13-24).

It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of using neighbor cell information to determine when to perform a handover of Kotzin, to the method of performing a handover between a plurality of different networks of Back and Lin, to include a method of determining that said terminal must hand over from said first base station to said second base station, when neighbor cell information received from said terminal is insufficient, in order to expedite the process of improving the likelihood of providing information necessary to handover to a viable target candidate station and thus minimizing the handoff time in a communication system.

Allowable Subject Matter

6. Claims 1-14 are allowed.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pardeep et al., U.S. Publication Number 2005/0159158 A1 discloses method and system for providing mobile handoff between hybrid networks.

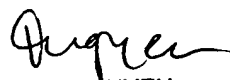
Narasimha et al., U.S. Publication Number 2002/0187804 A1 discloses wireless terminals and methods that can acquire a CDMA system while continuing to receive paging messages from an AMPS system.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony S. Addy whose telephone number is 571-272-7795. The examiner can normally be reached on Mon-Thur 8:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc M. Nguyen can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A.S.A


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